Title (en)

Charged particle beam device with dark field detector

Title (de)

Teilchenstrahlgerät mit Dunkelfelddetektor

Title (fr)

Dispositif à faisceau de particules chargées avec détecteur en fond noir

Publication

EP 2560185 A3 20130904 (EN)

Application

EP 12006748 A 20040129

Priority

- EP 04001955 A 20040129
- JP 2003022973 A 20030131
- JP 2004001548 A 20040107

Abstract (en)

[origin: EP1450391A2] The charged particle beam device of this invention separately detects secondary signal particles emitted from the surface of a sample, dark field signal particles scattered within and transmitted through the sample, bright field signal particles transmitted through the sample without being scattered within the sample, and thereby allows the operator to observe the image with an optimum contrast according to applications. In order to detect only the dark field transmitted signal particles scattered within the sample, among the transmitted signal particles obtained by the primary charged particle beams having transmitted through the thin film sample, the device includes a transmitted signal conversion member having an opening through which the bright field transmitted signal particles not being scattered within the sample can pass, and a detection means for detecting signals colliding against the conversion member.

IPC 8 full level

H01J 37/28 (2006.01); **H01J 37/09** (2006.01); **H01J 37/244** (2006.01)

CPC (source: EP US)

H01J 37/244 (2013.01 - EP US); **H01J 37/28** (2013.01 - EP US); H01J 2237/24455 (2013.01 - EP US); H01J 2237/2446 (2013.01 - EP US); H01J 2237/2802 (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

DE NL

DOCDB simple family (publication)

EP 1450391 A2 20040825; **EP 1450391 A3 20110309**; **EP 1450391 B1 20130703**; EP 2560185 A2 20130220; EP 2560185 A3 20130904; EP 2560185 B1 20141210; JP 2004253369 A 20040909; JP 4200104 B2 20081224; US 2004238752 A1 20041202; US 2007235645 A1 20071011; US 2009050803 A1 20090226; US 6963069 B2 20051108; US 7456403 B2 20081125; US 7964845 B2 20110621

DOCDB simple family (application)

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